REMARKS

Upon entry of the Amendment, claims 1-4 and 15-50 are all the claims pending in the application. Claims 15-50 have been withdrawn from consideration. Claims 1-4 have been amended. Claims 5-10 and 12-14 have been canceled. Further, the specification has been amended.

I. Claim Objections

Claims 1 and 10 have been objected to allegedly because the phrase "oxynitride of element having" is awkward.

Applicants respectfully submit that the amendments overcome this objection. Claim 1 has been amended. As presently recited, claim 1 does not recite the phrase "oxynitride of element having." Claim 10 has been canceled.

Further, claim 3 presently recites "oxynitride of one or more elements."

II. Claim Rejections - 35 U.S.C. § 112

Claims 3, 5, 6, 9, and 10 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

With respect to claim 3, the Examiner asserts that claim 3 is a dependent claim but does not set forth from which claim it depends. Claim 3 has been amended to be in independent form.

With respect to claims 5, 6, 9, and 10, these claims have been canceled.

III. Claim Rejections - 35 U.S.C. § 102

Claims 1-7, 9, and 10 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,544,801 to Slaughter *et al.* ("Slaughter '801").

Claim 1 presently recites *inter alia* that a diffusion barrier structure is made of material selected from the group consisting of TiN and ZrN.

Claim 2 presently recites *inter alia* that a diffusion barrier structure is formed of material selected from the group consisting of MgO_x, CaO_x, LiO_x, and HfO_x.

Claim 3 presently recites *inter alia* that a diffusion barrier structure is made of oxynitride of one or more elements having free energies of oxide and nitride formations less than those of elements included in layers connected on top and bottom surfaces of said diffusion barrier structure.

In contrast, Slaughter '801 discloses that diffusion barrier layer 67 can be formed of a material such as AlO_x or TaN_x. *See*, col. 5, lines 21-22. AlO_x and TaN_x are different from TiN, ZrN, MgO_x, CaO_x, LiO_x, and HfO_x. Further, AlO_x and TaN_x are different from an oxynitride. Therefore, Slaughter '801 fails to describe or suggest a diffusion barrier as recited in claim 1, 2, or 3.

Claim 4 depends from claim 3. In this regard, claim 4 is not anticipated for at least the same reasons as claim 3.

IV. Claim Rejections - 35 U.S.C. § 103

Claim 8 has been rejected under 35 U.S.C. § 103, as allegedly being unpatentable over Slaughter '801.

Additionally, claims 12 to 14 have been rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Slaughter '801 in view of U.S. Patent No. 5,998,016 to Sasaki *et al.* ("Sasaki '016").

As described above, Slaughter '801 fails to teach or suggest a diffusion barrier as recited in claim 1, 2, or 3.

Further, Sasaki '016 is relied upon for disclosing oxides and nitrides such as Al_2O_3, SiO_2, and SiN. In this regard, Sasaki '016 fails to make up for the deficiencies of Slaughter '801.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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